

FLOODING: MANAGING HEALTH RISKS IN THE WHO EUROPEAN REGION



Abstract

Over the last 20 years, flood events have occurred in 49 countries in the WHO European Region. These have caused more than 2000 deaths, other health effects, property losses, damage to health facilities, displacement and enormous economic costs (estimated at €70 billion). A survey of countries in the Region highlighted the gaps in the prevention of health effects of floods and the availability of timely flood–health response strategies or established action plans. Further cross-sectoral coordination is crucial in preventing deaths, injuries, disease and other health consequences. A range of measures to protect population health care are proposed in this publication, organized around prevention, preparedness, response and recovery. Approaches to manage the health risks of floods should be based on the common policies, plans and measures for all types of hazards, before addressing the specific issues associated with floods.

Keywords

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Executive summary

In the WHO European Region, floods are the most common natural hazard leading to emergencies, causing extensive damage, disruption and health effects. Over the last 20 years flood events have been recorded in 49 of the 53 Member States. Estimates for the WHO European Region based on data from the international disaster database (EM-DAT) indicate that approximately 400 floods have caused the deaths of more than 2000 people, affected 8.7 million others and generated at least €72 billion in losses in the period 2000–2014 (Guha-Sapir et al., 2015).

The magnitude of the physical and human costs of such events can be reduced if adequate emergency prevention, preparedness, response and recovery measures are implemented in a sustainable and timely manner. Resilient and proactive health systems that anticipate needs and challenges are more likely to reduce risks and respond effectively during emergencies, thereby saving lives and alleviating human suffering.

Over the last few years, countries in the Region have requested assistance from WHO Regional Office for Europe during severe flood events. Moreover, a survey conducted by WHO and Public Health England highlighted the gaps in the prevention of the health effects of floods and in the availability of coordinated and systematic flood–health response strategies or action plans.

Experiences in the Region indicate a need to shift the emphasis from disaster response to long-term risk management. The approach should include health impact assessments of structural measures to combat flooding; specific building regulations in flood-prone areas and insurance policies. Flood–health risk management – through the development of flood–health action plans – should therefore be considered multisectoral. This encompasses systematic analysis and management of health risks posed by floods, through a combination of hazard and vulnerability reduction measures to prevent risks, as well as response and recovery measures corresponding to the four phases of emergency management: prevention, preparedness, response and recovery. Hospitals, ambulance stations, retirement homes, schools and kindergartens in flood-prone areas are at particular risk: evacuation of patients and other vulnerable groups may represent special challenges.

In this publication, the authors propose the development of a flood–health emergency risk management plan, and describe some of the essential elements. This management plan has to be flexible but specific, so that it can be nationally adjusted as required. Definitions of the terms and potential sources from WHO and other international organizations are provided in Annex 1 and II. A range of information sheets on public health advice for health authorities, health professionals, local authorities and emergency managers are provided in Annex III. The publication builds on an extensive literature review, published by WHO Regional Office for Europe and Public Health England (Menne and Murray, 2013).

Abbreviations

DRR	disaster risk reduction
ERC	emergency risk communication
IHR	International Health Regulations
IPCC	Intergovernmental Panel on Climate Change
UNISDR	United Nations Office for Disaster Risk Reduction
WNF	West Nile fever
WNV	West Nile virus
WSP	water safety plan

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